Instruction Manual

impression X4 L

Rev. B

from software version: v045

GLP
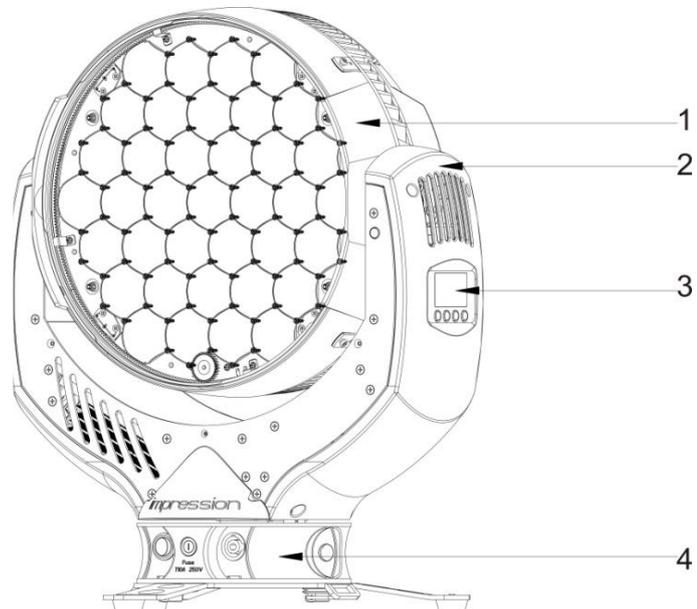GERMAN LIGHT
PRODUCTS
—— since 1994 ——

support@glp.de
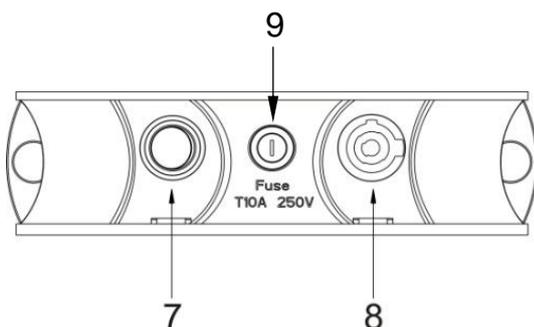www.glp.de

Contents

1 Description of Device

1. Moving head
   (actively and passively cooled)

2. Arm with various cooling vents

3. LCD-Display/Menu (data entry)

4. Base with various connectors and
   Camlock mounting system
   (see section 2.2 below)

Base side view:
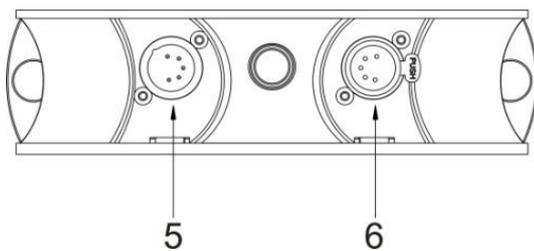
5. DMX Input (5 pin)

6. DMX Output (5 pin)

7. Power On/Off

8. Mains Input (powerCON)

9. Micro-fuse 5x20mm, T10A

2 Safety Instructions

⚠	The **IMPRESSION X4 L** is a High-Tech Product. To guarantee a smooth operation, it is necessary to respect the following rules. The manufacturer of this device will not take responsibility for damages through any disregard of the information provided in this manual. Warranty claims also will be voided in the case that the fixture housing is opened.
☢	**Never look directly into the beam of light or into one of the LEDs.** **Attention:** LED Class 2M can cause injuries of your eyes even without optical instruments in front of them or within a distance of less than 0.5m and short exposure time. Hence: Avoid direct radiation into your eyes!
⚠	**WARNING:** **Never** let optical parts come in contact with alcohol, solvents or similar cleaners.

1. Before powering on the fixture, make sure that the fixtures fans and air inlets are clean and not blocked.

2. Ensure that the fixture head can rotate unhindered throughout its complete range of pan and tilt movement. A safety distance of at least 0.5 m must be maintained between the fixture and any easily inflammable material (e.g. decoration material).

3. **Attention!** Don't touch the fixture during the operation. This can cause injuries and/or damages.

4. **The fixture doesn't contain any user serviceable parts. Opening the fixture will void all warranties.**

5. It is necessary to wait at least 15 minutes after disconnecting the mains power before handling the fixture.. Pay attention to possible hot parts of the fixture.

6. To ensure safe operation, follow also the Installation guide described in the chapter below. Operating the **IMPRESSION X4 L** without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident and must be avoided.

7. Repair, maintenance, and installation work shall be done by qualified or GLP certified staff only. You need to pay attention to the common rules of technology that are not explicitly mentioned in this manual.

8. Use only original GLP   spare parts. Any structural modification of the system will terminate all warranty claims.

9. Please keep this instruction manual for future reference.

⚠ Important Safety Information

The **IMPRESSION X4 L** fixture from GLP is fitted with a number of plano-convex lenses in a highly efficient collimator cluster. This type of lens can act as a strong magnifying glass.

If the rays from a strong light source (such as the sun or another lighting fixture) are directed towards the front of any of these fixtures, then internal damage may occur. In a worst case scenario with a high power light source this can happen very quickly, damaging the fixture internally, potentially melting components or causing an internal fire within seconds.

In order to avoid these possible problems please adhere to the following requirements:

- **Do not expose the front of a fixture to direct sunlight or any other strong light sources.**

- **For outdoor applications during daylight make sure that the front face of any fixture is either shielded or points away from the sun, even when fixtures are not in use.**

- **Do not modify the front glass or lenses of any fixture.**

These requirements have to be followed regardless of whether a fixture is powered on or off as the magnifying effect is an optical effect and therefore independent from the (electrical) state of the fixture.

Especially when working with high powered **beam-lights**; extreme caution and observance of these safety instructions is mandatory.
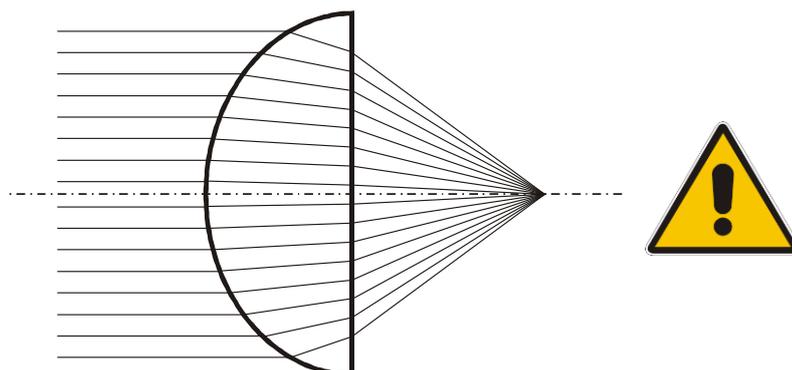
Should you have any questions about the operation of your fixture then please contact your local GLP office, or their authorized distributor, a list of which can be found at www.glp.de.

3 Preparation and Installation

3.1 Mounting

The **IMPRESSION X4 L** is fully operational whether it hangs or is mounted to the wall. It can also be operated while standing on the floor. Keep a safety distance of min. 0.5 m towards any easily inflammable materials (decoration etc.).
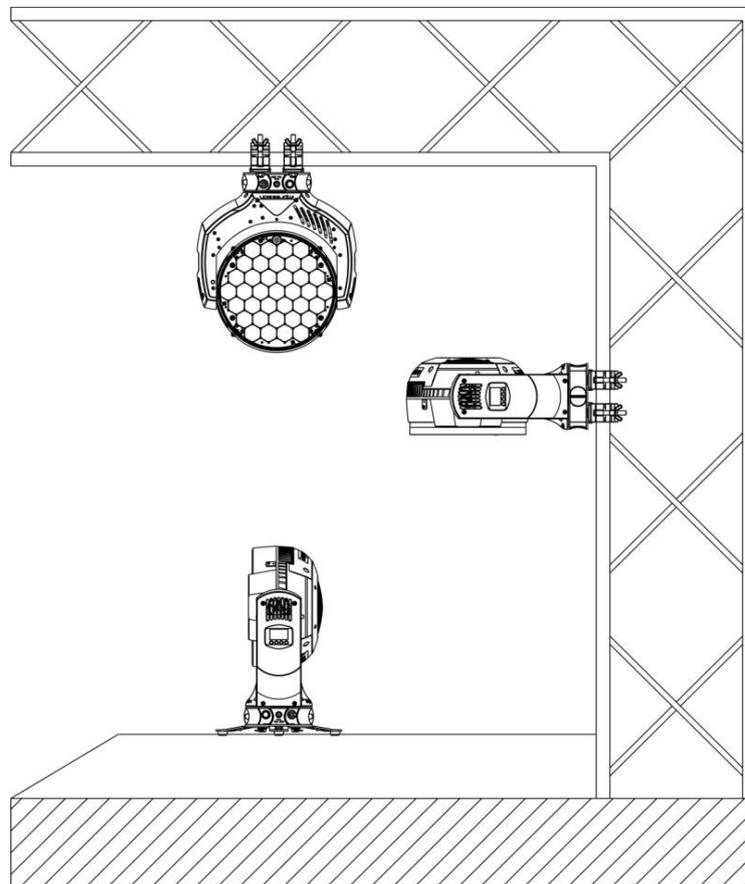
⚠	**Pay attention to the regulations of: BGV C1 (former VBG 70) and DIN VDE 0711-217.** **The installation shall be done by qualified staff only.**

For the various mounting positions of the **IMPRESSION X4 L** (standing on the floor, sideways or hanging) different accessories kits are available. Through this a safe and firm installation is assured. You'll find dedicated connectors on the bottom side of the fixture which should be used. In addition the base is marked with a **FRONT** arrow allowing consistent orientation during installation.

Base plate view:

4 x Camlock quick release fasteners

2 x M10 length max.16mm
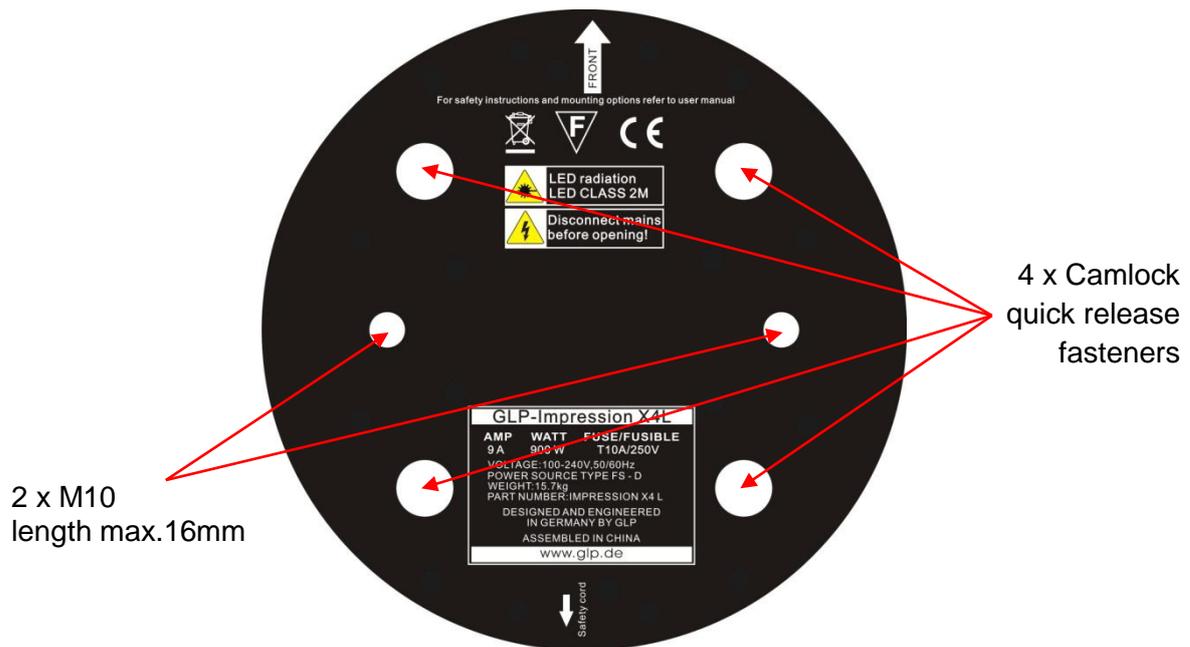
3.1.1 Operating on the Floor (upright)

To operate the **IMPRESSION X4 L** in an upright position, please use the dedicated tri-legged floor stand supplied with your fixture. It is fixed to the base of the fixture with fasteners called Camlock quick-release connectors. Insert the two fasteners and turn each 90° to lock them. Do the opposite to release them again. On both sides you'll find eyelets to pull though a fixing strap. This allows for additional bracing of the fixture.
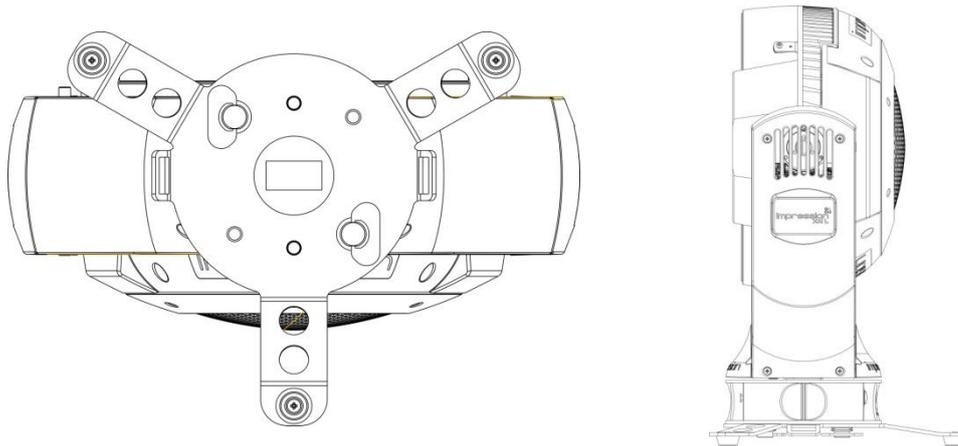
3.1.2 Mounting in hanging position (head down):

To operate the **IMPRESSION X4 L** in a hanging position two (2) omega

brackets can be mounted directly to the bottom of the base using the

four (4) Camlock connectors.

Alternatively two (2) half-couplers (clamps or hooks) can be mounted directly to the bottom side of the fixture using the two (2) M10x16 mm thread bolts.

Attention: **Never use a longer bolt as this may damage the interior of the fixture.**
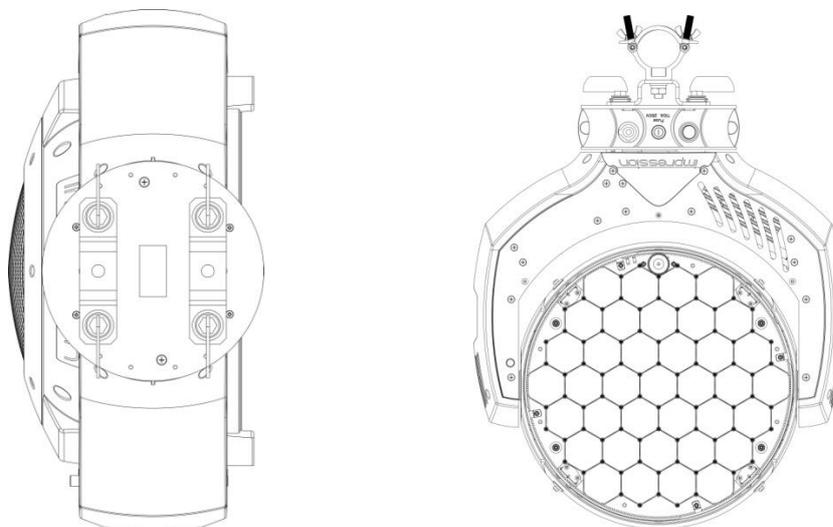
3.2 Securing the Fixture

Regardless of the mounting method of the **IMPRESSION X4 L** you'll have to use a stipulated safety wire. Attach the safety wire through one of the two holes provided on the base of the fixture and connect it to the primary support structure. Pay attention to a safe and proper fastening. The safety cable must comply with EN 60598-2-17 Section 17.6.6 and be capable of bearing a static suspended load that is ten times the weight of the fixture and all installed accessories.

3.3 Connections

3.3.1 Power Supply

~100-240 Volt AC, 50-60 Hz, powerCON AC connector

Connected load 900 VA (W) <=> T10A (micro-fuse 5x20mm)
Please see printing on the case for the right electronic supply!
Disconnect from the mains supply for changing the fuse and use only the above described micro-fuse type.

3.3.2 DMX

USITT DMX-512 Standard input/output in 5-pin connectors.
Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+] / Pin 4&5 N.C.
The DMX- Addressing starts at the DMX- Address [001].

4   The Menu Field

You'll find the control board on the side part of the arm. It allows you to make all necessary adjustments of the **IMPRESSION X4 L**.

With the Mode-key you get into the main menu. Afterwards you can navigate through the menu with the Up/Down-keys. Push the Enter-key to get in the next menu level or to confirm your settings. Make them and set functions ON/OFF with the Up/Down-keys. Confirm and save it with the Enter-key (the display shows OK). Push the Mode-key to cancel the entry and go back to the main menu.
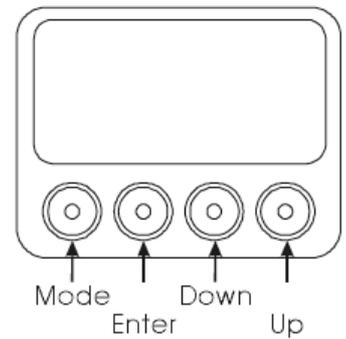
To lock or unlock the keys of the menu field press Mode + Enter + Up simultaneously.

← MODE - ENTER →

Level1	Level 2	Level 3	Level 4	Remark
DMX Start Address 001				Set the DMX start address
Special				Advanced settings
Set DMX Mode				Select the desired DMX Mode
	Compressed Mode			Fixture works in "Compressed" mode → see also section 4 below
	Normal Mode			Fixture works in "Normal" mode → see also section 4 below
	Extended Mode			Fixture works in "Extended" mode → see also section 4 below
	Single Pixel Mode			Fixture works in "Single Pixel" mode → see also section 4 below
Position feedback				Switch automatic position feedback ON/OFF
Reverse Tilt				Invert Tilt movements: ON/OFF
Reverse Pan				Invert Pan movements: ON/OFF
Reset				RESET and new calibration for all functions

↓ DOWN - UP ↑

5   DMX Chanel Selection (DMX Protocol)

5.1   *Normal Mode (norm) 29 DMX channels:*

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 608°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 243°	0..255
4 Tilt - Low	Tilt fine		0..255
5 Color (fixed)	Colors adjustable via RGB		0..7
	Color 01 - Red [1]		8..15
	Color 02 - Amber [1]		16..23
	Color 03 - Warm Yellow [1]		24..31
	Color 04 - Yellow [1]		32..39
	Color 05 - Green [1]		40..47
	Color 06 - Turquoise [1]		48..55
	Color 07 - Cyan [1]		56..63
	Color 08 - Blue [1]		64..71
	Color 09 - Lavender [1]		72..79
	Color 10 - Malve [1]		80..87
	Color 11 - Magenta [1]		88..95
	Color 12 - Pink [1]		96..103
	White – CTO	3200K	104..111
	White	5600K	112..119
	White – CTB	7200K	120..127
	Rainbow Effect Stop [2]		128
	Rainbow Effect [3]	slow - fast	129..223
	Random colors	slow - fast	224..255
6 Red	Color mixing system - Red	0 - 100%	0..255
7 Green	Color mixing system - Green	0 - 100%	0..255
8 Blue	Color mixing system - Blue	0 - 100%	0..255
9 White	Color mixing system - White	0 - 100%	0..255
10 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255

11 Intensity	Intensity			0 - 100%	0..255
12 CTO	No CTO				0..7
	Continuous color temperature correction 2,500k – 10,000k			*Applicable for ALL colors*	8..255
13 Special	Pattern Block 1				0..3
	Pattern Block 2				4..7
	Pattern Block 3				8..11
	Pattern Block 4				12..15
	Pattern Block 5				16..19
	Pattern Block 6				20..23
	Pattern Block 7				24..27
	Pattern Block 8				28..31
	Pattern Block 9				32..35
	Pattern Block 10				26..39
	Switch Pattern to Animation				80..83
	Set Zoom normal			> 1 sec	216..219
	Set Zoom inverted			> 1 sec	220..223
	RESET			> 1 sec	250..255
14 Movement Macros	No macros				0..4
	Movement	**Speed**	**Phase**	*Use channel 15 to adjust*	
	Pan	1	0°		01..01
	Pan	1	90°		02..03
	Pan	1	180°		04..05
	Pan	1	270°		06..07
	Pan	2	0°		08..09
	Pan	2	90°		10..11
	Pan	2	180°		12..13
	Pan	2	270°		14..15
	Pan	3	0°		16..17
	Pan	3	90°		18..19
	Pan	3	180°		20..21
	Pan	3	270°		22..23
	Pan	4	0°		24..25
	Pan	4	90°		26..27
	Pan	4	180°		28..29
	Pan	4	270°		30..31
	Tilt	size / phase see Pan			32..63
	Pan / Tilt	size / phase see Pan			64..95
	Pan / Tilt (inverse)	size / phase see Pan			96..127
	Circle	size / phase see Pan			128..159

		Circle (inverse)	size / phase see Pan	160..191
		Lying eight	size / phase see Pan	192..223
		Random movement	size / phase see Pan	224..255
15	Pan / Tilt Speed	Pan/Tilt movement speed from controller		0..1
		Pan/Tilt, slow – fast		2..255
		Use this channel for the speed of the macros on channel 14		
16	Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
17	Pattern	No Pattern		0
		255 pre-defined **patterns**		1..255
		255 pre-defined **animations** *(only if Channel 13 is set to 80..83)*		1..255
18	Intensity Front	Intensity foreground layer	0 - 100%	0..255
19	Intensity Back	Intensity background layer [4]	0 - 100%	0..255
20	Back Red	Color mixing system - Background Red [4]	0 - 100%	0..255
21	Back Blue	Color mixing system - Background Green [4]	0 - 100%	0..255
22	Back Green	Color mixing system - Background Blue [4]	0 - 100%	0..255
23	Back White	Color mixing system - Background White [4]	0 - 100%	0..255
24	A - Phase	Animation starting point		0..255
25	A - Speed	Animation speed *(starting from point set in Channel 24)*		1..255
26	Crossfade	0..2 seconds transition time		0..255
27	Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
		Pan Normal / Tilt Normal	60°	2..3
		Pan Normal / Tilt Normal	120°	4..5
		Pan Normal / Tilt Normal	180°	6..7
		Pan Normal / Tilt Normal	240°	8..9
		Pan Normal / Tilt Normal	300°	10..11
		Pan Normal / Tilt Inverted	0°	16..17
		Pan Normal / Tilt Inverted	60°	18..19
		Pan Normal / Tilt Inverted	120°	20..21
		Pan Normal / Tilt Inverted	180°	22..23
		Pan Normal / Tilt Inverted	240°	24..25
		Pan Normal / Tilt Inverted	300°	26..27
		Pan inverted / Tilt normal	0°	32..33
		Pan inverted / Tilt normal	60°	34..35
		Pan inverted / Tilt normal	120°	36..37
		Pan inverted / Tilt normal	180°	38..39
		Pan inverted / Tilt normal	240°	40..41
		Pan inverted / Tilt normal	300°	42..43
		Pan inverted / Tilt inverted	0°	48..49
		Pan inverted / Tilt inverted	60°	50..51

		Pan inverted / Tilt inverted	120°	52..53
		Pan inverted / Tilt inverted	180°	54..55
		Pan inverted / Tilt inverted	240°	56..57
		Pan inverted / Tilt inverted	300°	58..59
28	**Pattern Effect**	No effect		0..1
		crossfade		02..15
		random flash white	slow – fast	16..31
		random color	slow – fast	32..47
		random color background only	slow – fast	48..63
29	**Beam Shaper** (optional)	Beam Shaper position	0° - 540°	0..255

5.2 Compressed Mode (comp) 21 DMX Channels:

Channel		Function	Time and Value	DMX
1	**Pan - High**	Pan coarse	0° - 608°	0..255
2	**Pan - Low**	Pan fine		0..255
3	**Tilt - High**	Tilt coarse	0° - 243°	0..255
4	**Tilt - Low**	Tilt fine		0..255
5	**Color (fixed)**	Colors adjustable via RGB		0..7
		Color 01 - Red [1]		8..15
		Color 02 - Amber [1]		16..23
		Color 03 - Warm Yellow [1]		24..31
		Color 04 - Yellow [1]		32..39
		Color 05 - Green [1]		40..47
		Color 06 - Turquoise [1]		48..55
		Color 07 - Cyan [1]		56..63
		Color 08 - Blue [1]		64..71
		Color 09 - Lavender [1]		72..79
		Color 10 - Malve [1]		80..87
		Color 11 - Magenta [1]		88..95
		Color 12 - Pink [1]		96..103
		White – CTO	3200K	104..111
		White	5600K	112..119
		White – CTB	7200K	120..127
		Rainbow Effect Stop [2]		128
		Rainbow Effect [3]	slow - fast	129..223
		Random colors	slow - fast	224..255
6	**Red**	Color mixing system - Red	0 - 100%	0..255
7	**Green**	Color mixing system - Green	0 - 100%	0..255
8	**Blue**	Color mixing system - Blue	0 - 100%	0..255
9	**White**	Color mixing system - White	0 - 100%	0..255
10	**Shutter**	Shutter closed		0..15
		Shutter pulse random	slow – fast	16..47
		Fade on, snap off (random patterns)	slow – fast	48..79
		Snap on, fade off (random patterns)	slow – fast	80..111
		Fade on, fade off (random patterns)	slow – fast	112..143
		Strobe random	5s - 0.1s	144..199
		Strobe effect slow - fast	1 Hz - 10 Hz	200..239
		Shutter open		240..255
11	**Intensity**	Intensity	0 - 100%	0..255

12	CTO	No CTO		0..7
		Continuous color temperature correction	*Applicable*	8..255
		2,500k – 10,000k	*for ALL colors*	
13	Special	Pattern Block 1		0..3
		Pattern Block 2		4..7
		Pattern Block 3		8..11
		Pattern Block 4		12..15
		Pattern Block 5		16..19
		Pattern Block 6		20..23
		Pattern Block 7		24..27
		Pattern Block 8		28..31
		Pattern Block 9		32..35
		Pattern Block 10		26..39
		Switch Pattern to Animation		80..83
		Set Zoom normal	> 1 sec	216..219
		Set Zoom inverted	> 1 sec	220..223
		RESET	> 1 sec	250..255
14	Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
15	Pattern	No Pattern		0
		255 pre-defined **patterns**		1..255
		255 pre-defined **animations** *(only if Channel 13 is set to 80..83)*		1..255
16	A - Phase	Animation starting point		0..255
17	A - Speed	Animation speed *(starting from point set in Channel 24)*		1..255
18	Crossfade	0..2 seconds transistion time		0..255
19	Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
		Pan Normal / Tilt Normal	60°	2..3
		Pan Normal / Tilt Normal	120°	4..5
		Pan Normal / Tilt Normal	180°	6..7
		Pan Normal / Tilt Normal	240°	8..9
		Pan Normal / Tilt Normal	300°	10..11
		Pan Normal / Tilt Inverted	0°	16..17
		Pan Normal / Tilt Inverted	60°	18..19
		Pan Normal / Tilt Inverted	120°	20..21
		Pan Normal / Tilt Inverted	180°	22..23
		Pan Normal / Tilt Inverted	240°	24..25
		Pan Normal / Tilt Inverted	300°	26..27
		Pan inverted / Tilt normal	0°	32..33
		Pan inverted / Tilt normal	60°	34..35
		Pan inverted / Tilt normal	120°	36..37
		Pan inverted / Tilt normal	180°	38..39
		Pan inverted / Tilt normal	240°	40..41
		Pan inverted / Tilt normal	300°	42..43
		Pan inverted / Tilt inverted	0°	48..49
		Pan inverted / Tilt inverted	60°	50..51
		Pan inverted / Tilt inverted	120°	52..53

	Pan inverted / Tilt inverted	180°	54..55
	Pan inverted / Tilt inverted	240°	56..57
	Pan inverted / Tilt inverted	300°	58..59
20 Pattern Effect	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
21 Beam Shaper (optional)	Beam Shaper position	0° - 540°	0..255

5.3 Extended Mode (high) 31 DMX Channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 608°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 243°	0..255
4 Tilt - Low	Tilt fine		0..255
5 Red - High	Color mixing system - Red - high	0 - 100%	0..255
6 Red - Low	Color mixing system - Red - low	0 - 100%	0..255
7 Green - High	Color mixing system - Green - high	0 - 100%	0..255
8 Green - Low	Color mixing system - Green - low	0 - 100%	0..255
9 Blue - High	Color mixing system - Blue - high	0 - 100%	0..255
10 Blue - Low	Color mixing system - Blue - low	0 - 100%	0..255
11 White - High	Color mixing system - White - high	0 - 100%	0..255
12 White - Low	Color mixing system - White - low	0 - 100%	0..255
13 Special	Pattern Block 1		0..3
	Pattern Block 2		4..7
	Pattern Block 3		8..11
	Pattern Block 4		12..15
	Pattern Block 5		16..19
	Pattern Block 6		20..23
	Pattern Block 7		24..27
	Pattern Block 8		28..31
	Pattern Block 9		32..35
	Pattern Block 10		26..39
	Switch Pattern to Animation		80..83
	Set Zoom normal	> 1 sec	216..219
	Set Zoom inverted	> 1 sec	220..223
	RESET	> 1 sec	250..255
14 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255
15 Intensity - High	Intensity - coarse	0 - 100%	0..255
16 Intensity - Low	Intensity - fine	0 - 100%	0..255
17 CTO	No CTO		0..7
	Continuous color temperature correction 2,500k – 10,000k	*Applicable for ALL colors*	8..255
18 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255

19	Pattern	No Pattern		0
		255 pre-defined **patterns**		1..255
		255 pre-defined **animations** *(only if Channel 13 is set to 80..83)*		1..255
20	Intensity Front	Intensity foreground layer	0 - 100%	0..255
21	Intensity Back	Intensity background layer [4]	0 - 100%	0..255
22	Back Red	Color mixing system - Background Red [4]	0 - 100%	0..255
23	Back Blue	Color mixing system - Background Green [4]	0 - 100%	0..255
24	Back Green	Color mixing system - Background Blue [4]	0 - 100%	0..255
25	Back White	Color mixing system - Background White [4]	0 - 100%	0..255
26	A - Phase	Animation starting point		0..255
27	A - Speed	Animation speed *(starting from point set in Channel 24)*		1..255
28	Crossfade	0..2 seconds transistion time		0..255
29	Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
		Pan Normal / Tilt Normal	60°	2..3
		Pan Normal / Tilt Normal	120°	4..5
		Pan Normal / Tilt Normal	180°	6..7
		Pan Normal / Tilt Normal	240°	8..9
		Pan Normal / Tilt Normal	300°	10..11
		Pan Normal / Tilt Inverted	0°	16..17
		Pan Normal / Tilt Inverted	60°	18..19
		Pan Normal / Tilt Inverted	120°	20..21
		Pan Normal / Tilt Inverted	180°	22..23
		Pan Normal / Tilt Inverted	240°	24..25
		Pan Normal / Tilt Inverted	300°	26..27
		Pan inverted / Tilt normal	0°	32..33
		Pan inverted / Tilt normal	60°	34..35
		Pan inverted / Tilt normal	120°	36..37
		Pan inverted / Tilt normal	180°	38..39
		Pan inverted / Tilt normal	240°	40..41
		Pan inverted / Tilt normal	300°	42..43
		Pan inverted / Tilt inverted	0°	48..49
		Pan inverted / Tilt inverted	60°	50..51
		Pan inverted / Tilt inverted	120°	52..53
		Pan inverted / Tilt inverted	180°	54..55
		Pan inverted / Tilt inverted	240°	56..57
		Pan inverted / Tilt inverted	300°	58..59
30	Pattern Effect	No effect		0..1
		crossfade		02..15
		random flash white	slow – fast	16..31
		random color	slow – fast	32..47
		random color background only	slow – fast	48..63
31	Beam Shaper (optional)	Beam Shaper position	0° - 540°	0..255

5.4 Single Pixel Mode (spix) 169 DMX Channels:

Channel		Function	Time and Value	DMX
1	**Pan - High**	Pan coarse	0° - 608°	0..255
2	**Pan - Low**	Pan fine		0..255
3	**Tilt - High**	Tilt coarse	0° - 243°	0..255
4	**Tilt - Low**	Tilt fine		0..255
5	**Color (fixed)**	Colors adjustable via RGB		0..7
		Color 01 - Red [1]		8..15
		Color 02 - Amber [1]		16..23
		Color 03 - Warm Yellow [1]		24..31
		Color 04 - Yellow [1]		32..39
		Color 05 - Green [1]		40..47
		Color 06 - Turquoise [1]		48..55
		Color 07 - Cyan [1]		56..63
		Color 08 - Blue [1]		64..71
		Color 09 - Lavender [1]		72..79
		Color 10 - Malve [1]		80..87
		Color 11 - Magenta [1]		88..95
		Color 12 - Pink [1]		96..103
		White – CTO	3200K	104..111
		White	5600K	112..119
		White – CTB	7200K	120..127
		Rainbow Effect Stop [2]		128
		Rainbow Effect [3]	slow - fast	129..223
		Random colors	slow - fast	224..255
6	**Red**	Color mixing system - Red	0 - 100%	0..255
7	**Green**	Color mixing system - Green	0 - 100%	0..255
8	**Blue**	Color mixing system - Blue	0 - 100%	0..255
9	**White**	Color mixing system - White	0 - 100%	0..255
10	**Shutter**	Shutter closed		0..15
		Shutter pulse random	slow – fast	16..47
		Fade on, snap off (random patterns)	slow – fast	48..79
		Snap on, fade off (random patterns)	slow – fast	80..111
		Fade on, fade off (random patterns)	slow – fast	112..143
		Strobe random	5s - 0.1s	144..199
		Strobe effect slow - fast	1 Hz - 10 Hz	200..239
		Shutter open		240..255
11	**Intensity**	Intensity	0 - 100%	0..255

12	CTO	No CTO		0..7
		Continuous color temperature correction	*Applicable*	8..255
		2,500k – 10,000k	*for ALL colors*	
13	Special	Pattern Block 1		0..3
		Pattern Block 2		4..7
		Pattern Block 3		8..11
		Pattern Block 4		12..15
		Pattern Block 5		16..19
		Pattern Block 6		20..23
		Pattern Block 7		24..27
		Pattern Block 8		28..31
		Pattern Block 9		32..35
		Pattern Block 10		26..39
		Switch Pattern to Animation		80..83
		Set Zoom normal	> 1 sec	216..219
		Set Zoom inverted	> 1 sec	220..223
		RESET	> 1 sec	250..255
14	Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
15	Pattern	No Pattern		0
		254 pre-defined **patterns**		1..254
		254 pre-defined **animations** *(only if Channel 13 is set to 80..83)*		1..254
		Single Pixel enabled (*use channel 22-169 to set RGBW*)		255
16	A - Phase	Animation starting point		0..255
17	A - Speed	Animation speed *(starting from point set in Channel 24)*		1..255
18	Crossfade	0..2 seconds transistion time		0..255
19	Pattern Orientation	Pan Normal / Tilt Normal	0°	0..1
		Pan Normal / Tilt Normal	60°	2..3
		Pan Normal / Tilt Normal	120°	4..5
		Pan Normal / Tilt Normal	180°	6..7
		Pan Normal / Tilt Normal	240°	8..9
		Pan Normal / Tilt Normal	300°	10..11
		Pan Normal / Tilt Inverted	0°	16..17
		Pan Normal / Tilt Inverted	60°	18..19
		Pan Normal / Tilt Inverted	120°	20..21
		Pan Normal / Tilt Inverted	180°	22..23
		Pan Normal / Tilt Inverted	240°	24..25
		Pan Normal / Tilt Inverted	300°	26..27
		Pan inverted / Tilt normal	0°	32..33
		Pan inverted / Tilt normal	60°	34..35
		Pan inverted / Tilt normal	120°	36..37

		Pan inverted / Tilt normal	180°	38..39
		Pan inverted / Tilt normal	240°	40..41
		Pan inverted / Tilt normal	300°	42..43
		Pan inverted / Tilt inverted	0°	48..49
		Pan inverted / Tilt inverted	60°	50..51
		Pan inverted / Tilt inverted	120°	52..53
		Pan inverted / Tilt inverted	180°	54..55
		Pan inverted / Tilt inverted	240°	56..57
		Pan inverted / Tilt inverted	300°	58..59
20	**Pattern Effect**	No effect		0..1
		crossfade		02..15
		random flash white	slow – fast	16..31
		random color	slow – fast	32..47
		random color background only	slow – fast	48..63
21	**Beam Shaper** (optional)	Beam Shaper position	0° - 540°	0..255
22	**Pixel 1 Red**	Color mixing system - Red	0 - 100%	0..255
23	**Pixel 1 Green**	Color mixing system - Green	0 - 100%	0..255
24	**Pixel 1 Blue**	Color mixing system - Blue	0 - 100%	0..255
25	**Pixel 1 White**	Color mixing system - White	0 - 100%	0..255
26	**Pixel 2 Red**	Color mixing system - Red	0 - 100%	0..255
27	**Pixel 2 Green**	Color mixing system - Green	0 - 100%	0..255
28	**Pixel 2 Blue**	Color mixing system - Blue	0 - 100%	0..255
29	**Pixel 2 White**	Color mixing system - White	0 - 100%	0..255
30	**Pixel 3 Red**	Color mixing system - Red	0 - 100%	0..255
31	**Pixel 3 Green**	Color mixing system - Green	0 - 100%	0..255
32	**Pixel 3 Blue**	Color mixing system - Blue	0 - 100%	0..255
33	**Pixel 3 White**	Color mixing system - White	0 - 100%	0..255
34	**Pixel 4 Red**	Color mixing system - Red	0 - 100%	0..255
35	**Pixel 4 Green**	Color mixing system - Green	0 - 100%	0..255
36	**Pixel 4 Blue**	Color mixing system - Blue	0 - 100%	0..255
37	**Pixel 4 White**	Color mixing system - White	0 - 100%	0..255
38	**Pixel 5 Red**	Color mixing system - Red	0 - 100%	0..255
39	**Pixel 5 Green**	Color mixing system - Green	0 - 100%	0..255
40	**Pixel 5 Blue**	Color mixing system - Blue	0 - 100%	0..255
41	**Pixel 5 White**	Color mixing system - White	0 - 100%	0..255
42	**Pixel 6 Red**	Color mixing system - Red	0 - 100%	0..255
43	**Pixel 6 Green**	Color mixing system - Green	0 - 100%	0..255
44	**Pixel 6 Blue**	Color mixing system - Blue	0 - 100%	0..255

45	Pixel 6 White	Color mixing system - White	0 - 100%	0..255
46	Pixel 7 Red	Color mixing system - Red	0 - 100%	0..255
47	Pixel 7 Green	Color mixing system - Green	0 - 100%	0..255
48	Pixel 7 Blue	Color mixing system - Blue	0 - 100%	0..255
49	Pixel 7 White	Color mixing system - White	0 - 100%	0..255
50	Pixel 8 Red	Color mixing system - Red	0 - 100%	0..255
51	Pixel 8 Green	Color mixing system - Green	0 - 100%	0..255
52	Pixel 8 Blue	Color mixing system - Blue	0 - 100%	0..255
53	Pixel 8 White	Color mixing system - White	0 - 100%	0..255
54	Pixel 9 Red	Color mixing system - Red	0 - 100%	0..255
55	Pixel 9 Green	Color mixing system - Green	0 - 100%	0..255
56	Pixel 9 Blue	Color mixing system - Blue	0 - 100%	0..255
57	Pixel 9 White	Color mixing system - White	0 - 100%	0..255
58	Pixel 10 Red	Color mixing system - Red	0 - 100%	0..255
59	Pixel 10 Green	Color mixing system - Green	0 - 100%	0..255
60	Pixel 10 Blue	Color mixing system - Blue	0 - 100%	0..255
61	Pixel 10 White	Color mixing system - White	0 - 100%	0..255
62	Pixel 11 Red	Color mixing system - Red	0 - 100%	0..255
63	Pixel 11 Green	Color mixing system - Green	0 - 100%	0..255
64	Pixel 11 Blue	Color mixing system - Blue	0 - 100%	0..255
65	Pixel 11 White	Color mixing system - White	0 - 100%	0..255
66	Pixel 12 Red	Color mixing system - Red	0 - 100%	0..255
67	Pixel 12 Green	Color mixing system - Green	0 - 100%	0..255
68	Pixel 12 Blue	Color mixing system - Blue	0 - 100%	0..255
69	Pixel 12 White	Color mixing system - White	0 - 100%	0..255
70	Pixel 13 Red	Color mixing system - Red	0 - 100%	0..255
71	Pixel 13 Green	Color mixing system - Green	0 - 100%	0..255
72	Pixel 13 Blue	Color mixing system - Blue	0 - 100%	0..255
73	Pixel 13 White	Color mixing system - White	0 - 100%	0..255
74	Pixel 14 Red	Color mixing system - Red	0 - 100%	0..255
75	Pixel 14 Green	Color mixing system - Green	0 - 100%	0..255
76	Pixel 14 Blue	Color mixing system - Blue	0 - 100%	0..255
77	Pixel 14 White	Color mixing system - White	0 - 100%	0..255
78	Pixel 15 Red	Color mixing system - Red	0 - 100%	0..255
79	Pixel 15 Green	Color mixing system - Green	0 - 100%	0..255
80	Pixel 15 Blue	Color mixing system - Blue	0 - 100%	0..255
81	Pixel 15 White	Color mixing system - White	0 - 100%	0..255
82	Pixel 16 Red	Color mixing system - Red	0 - 100%	0..255

83	Pixel 16 Green	Color mixing system - Green	0 - 100%	0..255
84	Pixel 16 Blue	Color mixing system - Blue	0 - 100%	0..255
85	Pixel 16 White	Color mixing system - White	0 - 100%	0..255
86	Pixel 17 Red	Color mixing system - Red	0 - 100%	0..255
87	Pixel 17 Green	Color mixing system - Green	0 - 100%	0..255
88	Pixel 17 Blue	Color mixing system - Blue	0 - 100%	0..255
89	Pixel 17 White	Color mixing system - White	0 - 100%	0..255
90	Pixel 18 Red	Color mixing system - Red	0 - 100%	0..255
91	Pixel 18 Green	Color mixing system - Green	0 - 100%	0..255
92	Pixel 18 Blue	Color mixing system - Blue	0 - 100%	0..255
93	Pixel 18 White	Color mixing system - White	0 - 100%	0..255
94	Pixel 19 Red	Color mixing system - Red	0 - 100%	0..255
95	Pixel 19 Green	Color mixing system - Green	0 - 100%	0..255
96	Pixel 19 Blue	Color mixing system - Blue	0 - 100%	0..255
97	Pixel 19 White	Color mixing system - White	0 - 100%	0..255
98	Pixel 20 Red	Color mixing system - Red	0 - 100%	0..255
99	Pixel 20 Green	Color mixing system - Green	0 - 100%	0..255
100	Pixel 20 Blue	Color mixing system - Blue	0 - 100%	0..255
101	Pixel 20 White	Color mixing system - White	0 - 100%	0..255
102	Pixel 21 Red	Color mixing system - Red	0 - 100%	0..255
103	Pixel 21 Green	Color mixing system - Green	0 - 100%	0..255
104	Pixel 21 Blue	Color mixing system - Blue	0 - 100%	0..255
105	Pixel 21 White	Color mixing system - White	0 - 100%	0..255
106	Pixel 22 Red	Color mixing system - Red	0 - 100%	0..255
107	Pixel 22 Green	Color mixing system - Green	0 - 100%	0..255
108	Pixel 22 Blue	Color mixing system - Blue	0 - 100%	0..255
109	Pixel 22 White	Color mixing system - White	0 - 100%	0..255
110	Pixel 23 Red	Color mixing system - Red	0 - 100%	0..255
111	Pixel 23 Green	Color mixing system - Green	0 - 100%	0..255
112	Pixel 23 Blue	Color mixing system - Blue	0 - 100%	0..255
113	Pixel 23 White	Color mixing system - White	0 - 100%	0..255
114	Pixel 24 Red	Color mixing system - Red	0 - 100%	0..255
115	Pixel 24 Green	Color mixing system - Green	0 - 100%	0..255
116	Pixel 24 Blue	Color mixing system - Blue	0 - 100%	0..255
117	Pixel 24 White	Color mixing system - White	0 - 100%	0..255
118	Pixel 25 Red	Color mixing system - Red	0 - 100%	0..255
119	Pixel 25 Green	Color mixing system - Green	0 - 100%	0..255
120	Pixel 25 Blue	Color mixing system - Blue	0 - 100%	0..255

121	Pixel 25 White	Color mixing system - White	0 - 100%	0..255
122	Pixel 26 Red	Color mixing system - Red	0 - 100%	0..255
123	Pixel 26 Green	Color mixing system - Green	0 - 100%	0..255
124	Pixel 26 Blue	Color mixing system - Blue	0 - 100%	0..255
125	Pixel 26 White	Color mixing system - White	0 - 100%	0..255
126	Pixel 27 Red	Color mixing system - Red	0 - 100%	0..255
127	Pixel 27 Green	Color mixing system - Green	0 - 100%	0..255
128	Pixel 27 Blue	Color mixing system - Blue	0 - 100%	0..255
129	Pixel 27 White	Color mixing system - White	0 - 100%	0..255
130	Pixel 28 Red	Color mixing system - Red	0 - 100%	0..255
131	Pixel 28 Green	Color mixing system - Green	0 - 100%	0..255
132	Pixel 28 Blue	Color mixing system - Blue	0 - 100%	0..255
133	Pixel 28 White	Color mixing system - White	0 - 100%	0..255
134	Pixel 29 Red	Color mixing system - Red	0 - 100%	0..255
135	Pixel 29 Green	Color mixing system - Green	0 - 100%	0..255
136	Pixel 29 Blue	Color mixing system - Blue	0 - 100%	0..255
137	Pixel 29 White	Color mixing system - White	0 - 100%	0..255
138	Pixel 30 Red	Color mixing system - Red	0 - 100%	0..255
139	Pixel 30 Green	Color mixing system - Green	0 - 100%	0..255
140	Pixel 30 Blue	Color mixing system - Blue	0 - 100%	0..255
141	Pixel 30 White	Color mixing system - White	0 - 100%	0..255
142	Pixel 31 Red	Color mixing system - Red	0 - 100%	0..255
143	Pixel 31 Green	Color mixing system - Green	0 - 100%	0..255
144	Pixel 31 Blue	Color mixing system - Blue	0 - 100%	0..255
145	Pixel 31 White	Color mixing system - White	0 - 100%	0..255
146	Pixel 32 Red	Color mixing system - Red	0 - 100%	0..255
147	Pixel 32 Green	Color mixing system - Green	0 - 100%	0..255
148	Pixel 32 Blue	Color mixing system - Blue	0 - 100%	0..255
149	Pixel 32 White	Color mixing system - White	0 - 100%	0..255
150	Pixel 33 Red	Color mixing system - Red	0 - 100%	0..255
151	Pixel 33 Green	Color mixing system - Green	0 - 100%	0..255
152	Pixel 33 Blue	Color mixing system - Blue	0 - 100%	0..255
153	Pixel 33 White	Color mixing system - White	0 - 100%	0..255
154	Pixel 34 Red	Color mixing system - Red	0 - 100%	0..255
155	Pixel 34 Green	Color mixing system - Green	0 - 100%	0..255
156	Pixel 34 Blue	Color mixing system - Blue	0 - 100%	0..255
157	Pixel 34 White	Color mixing system - White	0 - 100%	0..255
158	Pixel 35 Red	Color mixing system - Red	0 - 100%	0..255

159 Pixel 35 Green	Color mixing system - Green	0 - 100%	0..255
160 Pixel 35 Blue	Color mixing system - Blue	0 - 100%	0..255
161 Pixel 35 White	Color mixing system - White	0 - 100%	0..255
162 Pixel 36 Red	Color mixing system - Red	0 - 100%	0..255
163 Pixel 36 Green	Color mixing system - Green	0 - 100%	0..255
164 Pixel 36 Blue	Color mixing system - Blue	0 - 100%	0..255
165 Pixel 36 White	Color mixing system - White	0 - 100%	0..255
166 Pixel 37 Red	Color mixing system - Red	0 - 100%	0..255
167 Pixel 37 Green	Color mixing system - Green	0 - 100%	0..255
168 Pixel 37 Blue	Color mixing system - Blue	0 - 100%	0..255
169 Pixel 37 White	Color mixing system - White	0 - 100%	0..255

The Pixel are numbered left to right / top to bottom 1 – 37 as shown below.
Tilt DMX Value = 0 & "Display" to the left:
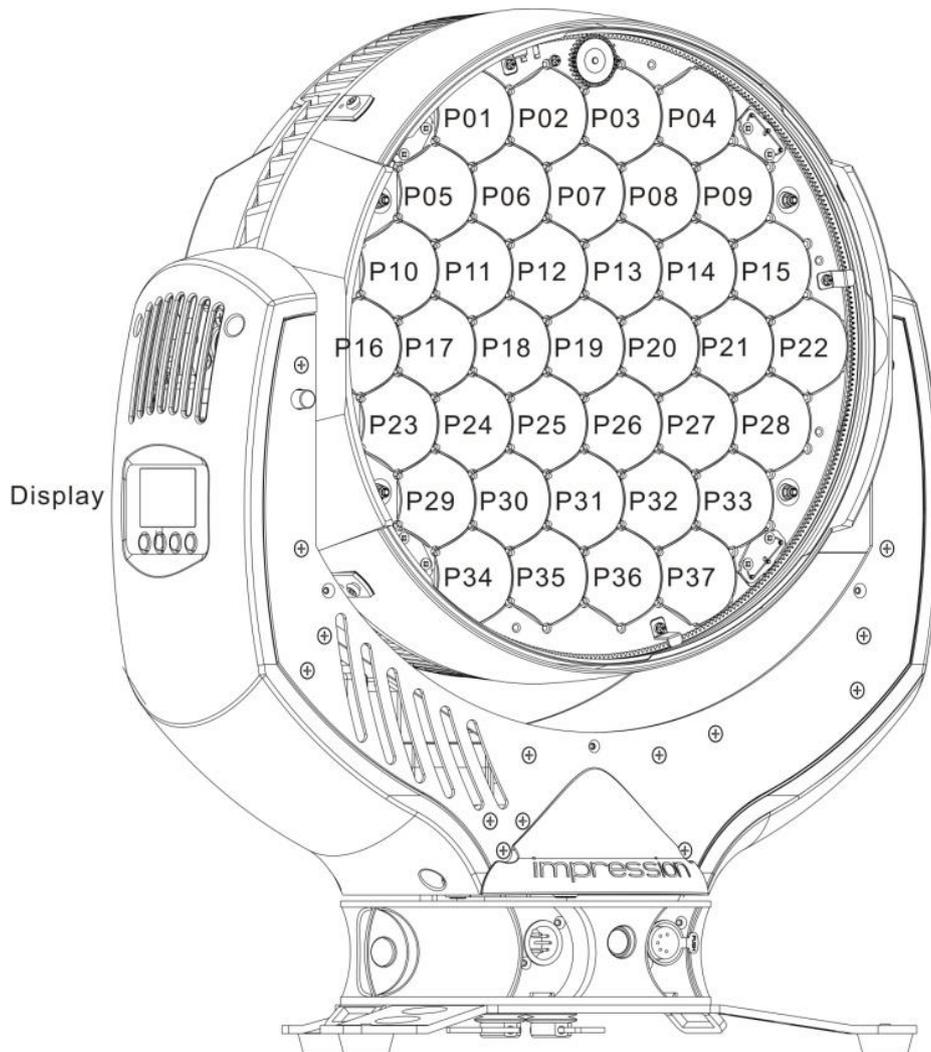
[1] The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **IMPRESSION X4 L** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4 L** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the ones marked with [1] in the tables above the rainbow start-color will be red.

[2] Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued from the current color.

[3] The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also [1] before).

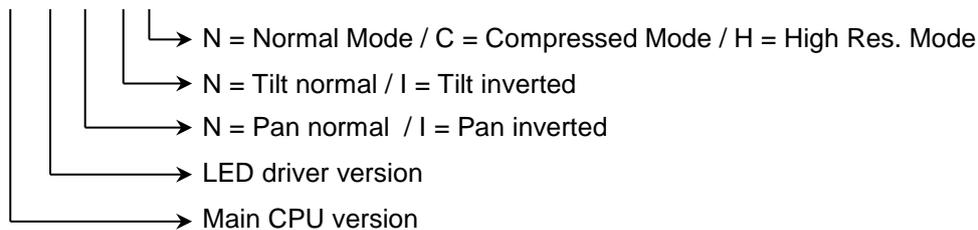[4] The background layer is only visible on the unlit pixel of the foreground layer if a pattern is applied.

Locking and unlocking the Control Panel
Please lock and unlock the control panel by pressing the menu keys **MODE & ENTER & UP** at the same time.

Additional Display Indications
As a default you'll find the following additional information in the first row of the LCD display:
Vxx/xx/xx/xx/x

        → N = Normal Mode / C = Compressed Mode / H = High Res. Mode

        → N = Tilt normal / I = Tilt inverted

        → N = Pan normal / I = Pan inverted

        → LED driver version

   → Main CPU version

6   Accessories

6.1   Optional Beam-Shaper:

The **IMPRESSION X4 L** can be equipped with an optional beam-shaper.

Please contact your local GLP dealer for further information about this accessory part.

To install the beam-shaper lens please locate the little cutout (see 1 below) and twist the lens carefully until the latch (see 2 below) locks in.

To remove the lens again simply pull the latch and twist the beam-shaper lens until you can lift it out of the fixture.
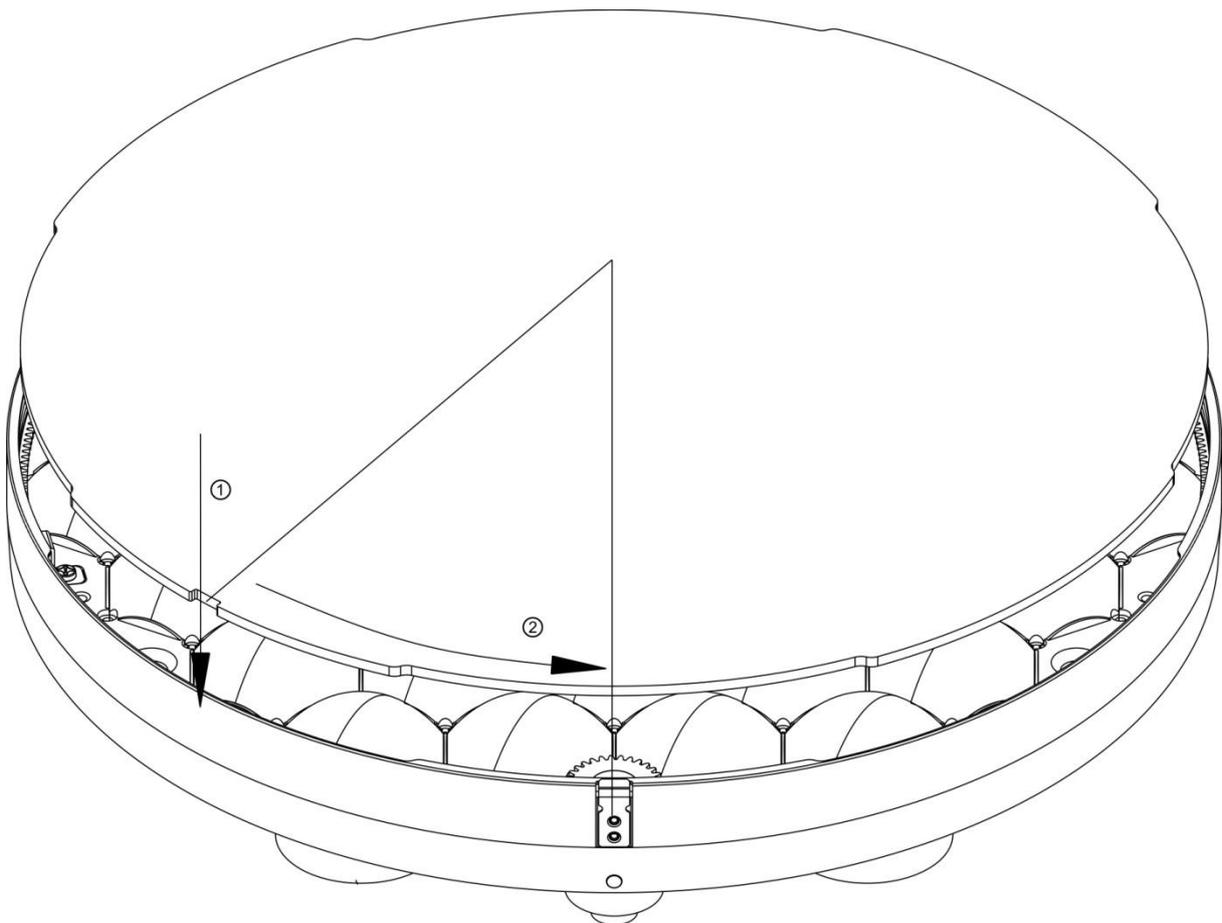
7   Maintaining and Cleaning

The **IMPRESSION X4 L** is a fixture of very low maintenance. It is only necessary to clean the air inlets and outlets as well as the optical LED lenses from time to time. For safe operation it is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on, or within the fixture. Otherwise the fixture's light-output will be significantly reduced or damages can occur. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to operate reliably throughout its life.

A soft lint-free cloth moistened with any good glass cleaning fluid is recommended to clean the lenses.

⚠️	**Attention:** **Under <u>no</u> circumstances should alcohol or solvents be used to clean the lenses!**

7.1   Safety regulations

- **Pull out the mains power plug!**

- Wait min. 15 minutes after disconnecting power to allow the fixture to cool down.

7.2   Maintenance and Interval (rule-of-thumb)

The contamination of the fixture depends on the environment details. Hence no general guidelines can be given. The intervals given below are only suggestions from our experience.

Position	Interval	In this way
LED reflector and optical system	weekly	soft brush /lint-free cloth
Fan and air channel	monthly	vacuum cleaner, airbrush, etc.

Attention:

- **Never let optical parts come into contact with oil, fat, alcohol or similar solvents.**
- **Before running the fixture wait until all parts are dry.**
- **Never touch lenses with bare fingers.**

8   Technical Specifications:

Power supply	
Power consumption	900 VA (Watt)
Power Input	Auto sensing 100-240 V AC, 50-60 Hz
Fuse protection	Micro-fuse 5x20 mm, T10A
Operational Parameters	
Max. Ambient Temperature	5° - 45°C (integrated overheating switch) 40°-113°F
Mounting Position	Any (see relevant chapter)
Lighting System - Additive Color mixing	
LED Type	37 x Osram Ostar RGBW multi-chip
Lifetime	50,000 h
Wavelength optimized for maximum presentable color space	
Optical System	
Full RGBW / High efficient Collimator cluster Beam-Shaper – positionable and rotateable (optional)	
Shutter / Dimmer (8/16 Bit)	
Strobe- Effect with variable speed between 1-10 flashes per second, Random & Pulse-Effects	
Continuous Dimmer 0 - 100%	
Zoom	
7 to 50 degree continuous high speed zoom	
Optical Patterns	
Several hundred pre-defined beam patterns with direct access and manipulation. Free control of every pixel, color and intensity	
DMX Control	
Standard USITT DMX-512, 5 pin XLR: [+]=Pin 3 / [-]=Pin 2 / [Ground]=Pin 1 / Pin 4&5 N.C. The DMX- Addressing starts at the DMX channel [001].	
Pan / Tilt (8/16 Bit)	
Pan- movement	**608° in min. 2 seconds (Position Feedback)**
Tilt- movement	**243° in min. 1 second (Position Feedback)**
Weights and Measures	
Width	**430 mm / 16.9´´**
Length	**185 mm / 7.3´´**
Height (head vertical)	**530 mm / 20.9´´ (incl. standing foot/tripod)**
Weight (net)	**15.6 kg / 34.4 lbs**
Weight (incl. tripod)	**16.9 kg / 37.3 lbs**

9 Dimensions